

# Dell SonicWALL Network Security Appliances

NETWORK SECURITY

NSA 6600

## Getting Started Guide

For localized product information, see page 48.

有关本地化产品信息，请参照第 48 页。

ローカライズされた製品の情報については、49 ページを参照してください。

다국어 제품 정보는 49 페이지를 참고하세요.

Para informação localizada do produto, veja página 50.



SonicWALL

## Notes, Cautions, and Warnings



**NOTE:** A NOTE indicates important information that helps you make better use of your system.



**CAUTION:** A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.



**WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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## In this Guide

The Dell SonicWALL NSA 6600 is designed to be the most scalable, reliable, and best performing multifunction appliance in its class.

This *Getting Started Guide* provides instructions for basic installation and configuration of the Dell SonicWALL NSA 6600.

Chapter 1	Sections Include
<a href="#">Introduction to the NSA 6600, page 5</a>	<ul style="list-style-type: none"><li>• <a href="#">NSA 6600 Package Contents, page 6</a></li><li>• <a href="#">The Front Panel, page 7</a></li><li>• <a href="#">The Back Panel, page 8</a></li><li>• <a href="#">Using this Getting Started Guide, page 9</a></li></ul>
Chapter 2	Sections Include
<a href="#">Configuring the Appliance, page 11</a>	<ul style="list-style-type: none"><li>• <a href="#">Determining the WAN Type, page 12</a></li><li>• <a href="#">System Requirements, page 12</a></li><li>• <a href="#">Recording Configuration Information, page 13</a></li><li>• <a href="#">Initial Setup, page 14</a></li><li>• <a href="#">Troubleshooting Your Connections, page 19</a></li></ul>

<b>Chapter 3</b>	Sections Include
<a href="#">Registering, Licensing, and Upgrading, page 21</a>	<ul style="list-style-type: none"> <li>• <a href="#">Using MySonicWALL, page 22</a></li> <li>• <a href="#">Creating a MySonicWALL Account, page 22</a></li> <li>• <a href="#">Registration Overview, page 23</a></li> <li>• <a href="#">Registering in SonicOS, page 23</a></li> <li>• <a href="#">Alternative Registration Options, page 24</a></li> <li>• <a href="#">Security Services and Software, page 25</a></li> <li>• <a href="#">Activating &amp; Managing Licenses Using MySonicWALL, page 26</a></li> <li>• <a href="#">Upgrading Firmware, page 27</a></li> </ul>
<b>Chapter 4</b>	Sections Include
<a href="#">Deployment Scenarios, page 31</a>	<ul style="list-style-type: none"> <li>• <a href="#">Advanced Deployment Scenarios, page 32</a></li> <li>• <a href="#">Configuring NAT Mode Gateway, page 36</a></li> <li>• <a href="#">Configuring a Stateful HA Pair, page 37</a></li> <li>• <a href="#">Configuring L2 Bridge Mode, page 43</a></li> </ul>

## Additional Information

The following sections provide additional information for the Dell SonicWALL NSA 6600 appliance.

- [Support and Training Options, page 45](#)
- [Rack Mounting Instructions, page 51](#)
- [Product Safety and Regulatory Information, page 57](#)



## In this Section:

This section describes the items shipped with the Dell SonicWALL NSA 6600 appliance, provides front and rear illustrations of the NSA 6600, and includes a flow diagram illustrating the steps for setting up the appliance.

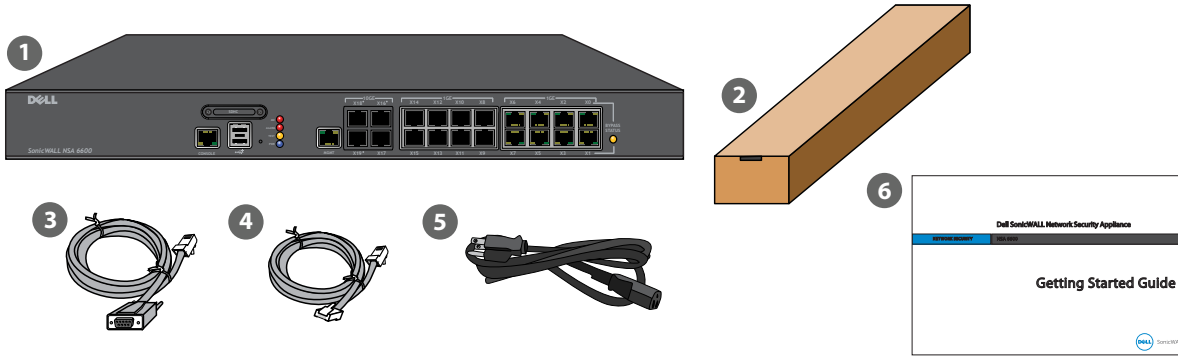
- [NSA 6600 Package Contents, page 6](#)
- [The Front Panel, page 7](#)
- [The Back Panel, page 8](#)
- [Using this Getting Started Guide, page 9](#)

# NSA 6600 Package Contents

Before you begin the setup process, verify that your package contains the following items:

1. One Dell SonicWALL NSA 6600 appliance
2. One Rack Mounting Kit
3. One serial CLI cable
4. One Ethernet cable
5. One power cord\*
6. One Dell SonicWALL NSA 6600 Getting Started Guide

\*The included power cord is approved for use only in specific countries or regions. Before using a power cord, verify that it is rated and approved for use in your location. The power cord is for AC mains installation only. See Safety and Regulatory Information for more information.

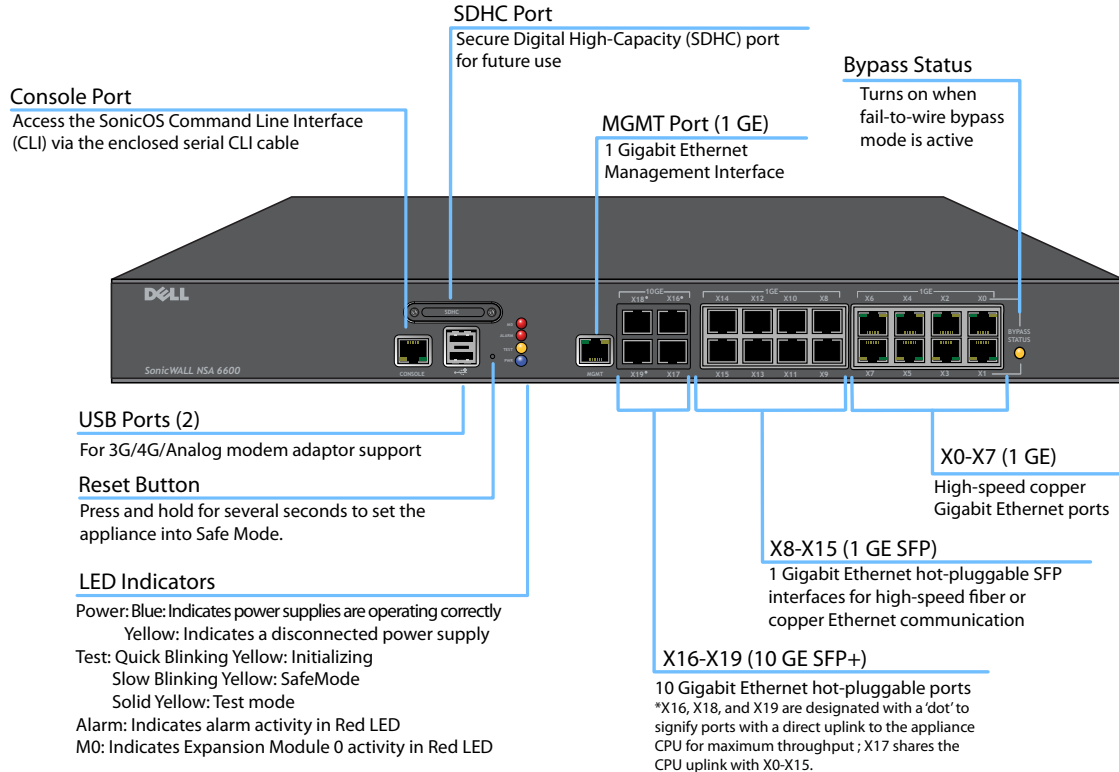


Missing Items? If any items are missing from your package, contact Dell SonicWALL Support:

Web: <http://www.sonicwall.com/us/Support.html>

Email: [customer\\_service@sonicwall.com](mailto:customer_service@sonicwall.com)

# The Front Panel



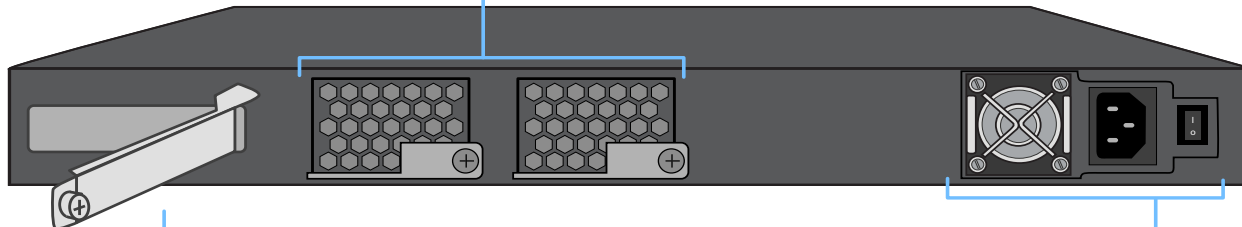


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## The Back Panel

### Fans (2)

Dual auto-throttling fans for system temperature control



### Expansion Bay

For Dell SonicWALL-approved expansion modules

### Power Supply

Provides power to the Dell SonicWALL appliance by plugging in the AC adaptor and switching the appliance on



**Warning:** Potential Hazard from Fan



*This manual contains specific warning and caution statements where they apply. Please read the Safety Instructions before use! See [Product Safety and Regulatory Information, page 57](#).*

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## Using this Getting Started Guide

The following flow chart illustrates the necessary steps in the process of getting started with your new Dell SonicWALL NSA 6600 appliance.

### Configuration Process



### Registration, Licensing, and Deployment Process





## In this Section:

This section provides an overview of available WAN types, a section to record configuration information, and initial setup information and procedures.

- [Determining the WAN Type, page 12](#)
- [System Requirements, page 12](#)
- [Recording Configuration Information, page 13](#)
- [Initial Setup, page 14](#)
- [Connecting to the Internet, page 17](#)
- [Troubleshooting Your Connections, page 19](#)

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## Determining the WAN Type

Before configuring your Dell SonicWALL NSA 6600 appliance, you will need to determine the type of WAN connection your setup will use. Dell SonicWALL supports the following types:

- **Static**—Configures the appliance for a network that uses static IP addresses.
- **DHCP**—Configures the appliance to request IP settings from a DHCP server on the Internet.
- **PPPoE**—Point-to-Point Protocol over Ethernet (PPPoE) is typically used with a DSL modem. If your ISP requires desktop software, a username, and password, select NAT with PPPoE mode.
- **PPTP**—Point-to-Point Tunneling Protocol (PPTP) is used to connect to a remote server. PPTP typically supports older Microsoft Windows implementations requiring tunneling connectivity.
- **L2TP**—Layer 2 Tunneling Protocol (L2TP) uses IPsec to connect to a L2TP server and encrypts all data transmitted from the client to the server. It does not encrypt network traffic to other destinations. If L2TP is not available in the Setup Wizard, you can configure it later in the SonicOS management interface.



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**Note:** For more information regarding other supported WAN types such as Wire Mode or Tap Mode, refer to the *SonicOS Administrator's Guide*.





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## System Requirements

Before beginning the setup process, verify that you have:

- An Internet connection
- A Web browser supporting Java Script and HTTP uploads.

	Accepted Browser	Browser Version Number
	Internet Explorer	8.0 and higher
	Chrome	18.0 and higher
	Firefox	16.0 and higher
	Safari	5.0 and higher

## Recording Configuration Information

Use this section to record your configuration information. Be sure to keep for future reference.

The default MGMT interface IP address is 192.168.1.254.

### Registration Information

Serial Number:	Record the serial number found on the bottom panel of your Dell SonicWALL appliance.
Authentication Code:	Record the authentication code found on the bottom panel of your Dell SonicWALL appliance.

### Networking Information

LAN IP Address: _____	Select a static IP address for your Dell SonicWALL appliance that is within the range of your local network. (default is <i>192.168.168.168</i> )
Subnet Mask: _____	Record the subnet mask for the local network. Client devices connecting through the appliance are assigned IP addresses in this network. (default is <i>192.168.168.0</i> )

Ethernet WAN IP Address: _____	Select a static IP address for your Ethernet WAN. <i>This setting only applies if you are already using an ISP that assigns a static IP address.</i>
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### Administrator Information

Admin Name:	Select an administrator account name. (default is <i>admin</i> )
Admin Password:	Select an administrator password. (default is <i>password</i> )

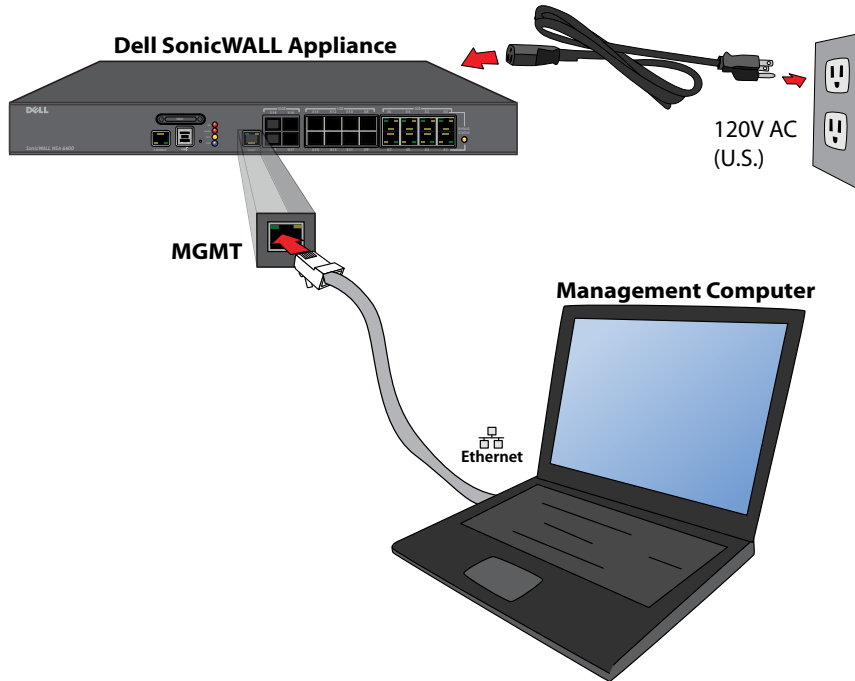
### Internet Service Provider (ISP) Information

Record the following information about your current Internet service:

If you are connecting with <b>DHCP</b>	<i>No information is usually required. However, some providers may require a Host Name:</i> _____
If you are connecting with Static IP	IP Address: _____ Subnet Mask: _____ Default Gateway: _____ Primary DNS: _____ DNS 2 (optional): _____ DNS 3 (optional): _____

# Initial Setup

The diagram below illustrates how to connect your management computer to the Dell SonicWALL NSA 6600 appliance for initial setup.



The following sections provide initial configuration information and instructions for connecting your Dell SonicWALL NSA 6600 appliance for initial setup.

- [Connecting the MGMT Port, page 15](#)
- [Applying Power to the NSA 6600, page 15](#)
- [NSA 6600 LED Activity, page 15](#)
- [Using the Setup Wizard, page 16](#)

## Connecting the MGMT Port

1. Using the provided Ethernet cable, connect one end of the cable to the computer you are using to manage the Dell SonicWALL NSA appliance.
2. Connect the other end of the Ethernet cable to the **MGMT** port on your Dell SonicWALL NSA appliance.

## Applying Power to the NSA 6600

Connect the AC power cord from the Dell SonicWALL NSA appliance into an appropriate power outlet.

For further information regarding power requirements, refer to [Product Safety and Regulatory Information, page 57](#) of this document.

## NSA 6600 LED Activity

The Power LEDs on the front panel illuminate blue when the appliance is powered on.

The Test LED or Alarm LED may illuminate and blink while the appliance performs a series of diagnostic tests. When these LEDs are no longer illuminated and the Power LEDs remain steadily lit, the Dell SonicWALL NSA 6600 appliance is ready for configuration. This typically occurs within a few minutes of turning on the power.

If the Test or Alarm LEDs remain lit after the NSA 6600 has completed powering on, restart the appliance by disconnecting the power, waiting 1 minute, then connecting the power again.

For a connected MGMT or X0 - X7 port, the Link LED for the port illuminates green or amber depending on the link throughput speed, indicating an active connection:

- Amber indicates 1 Gbps
- Green indicates 100 Mbps
- A unlit left LED with the right LED lit indicates 10 Mbps



## Using the Setup Wizard

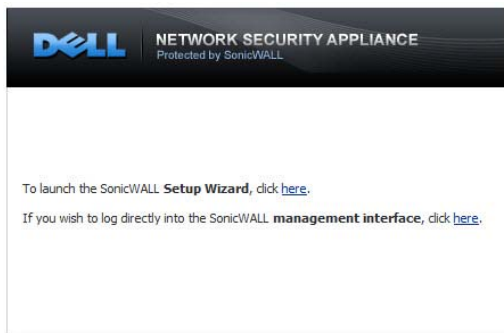
When you are ready to begin initial setup, configure your management computer with a static IP address on the 192.168.1.0/24 subnet, such as 192.168.1.20. This allows your computer to connect to SonicOS via the MGMT interface.



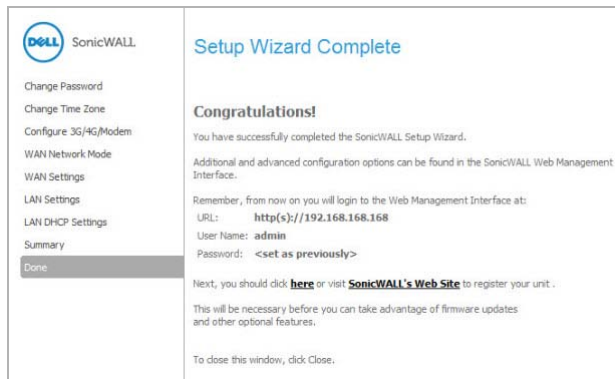
**Note:** *Be sure to disable pop-up blocking software, or set your Web browser to allow pop-ups and cookies.*

To access the SonicOS management interface, follow the steps listed:

1. With your computer connected to the appliance MGMT port, start your Web browser and navigate to the default MGMT interface IP address: <<http://192.168.1.254>>.



2. Launch the Dell SonicWALL Setup Wizard by clicking the first **Here** link. This wizard helps you quickly configure the Dell SonicWALL appliance to secure your Internet connection.
3. Follow the on-screen prompts to complete the Dell SonicWALL Setup Wizard.
4. A Setup Wizard Summary page displays at the end of the wizard. Verify the information you've entered is correct, then click **Apply**.
5. Once completed, a Setup Wizard Completion notice displays.



6. Click **Close**.
7. Continue to [Connecting to the Internet, page 17](#) to connect the appliance for Internet access and then refer to [Registering, Licensing, and Upgrading, page 21](#) to begin the registration process.

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## Connecting to the Internet

After initial setup is complete, connect the LAN and WAN interfaces for access to external networks or the Internet. You cannot reach the Internet or other WAN destinations while connected to the MGMT interface. For Internet access, connect to X0 or another configured LAN interface.



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**Note:** Internet connectivity is needed for the recommended product registration process.

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## Connecting the LAN Port

1. Connect one end of an Ethernet cable to your computer or to your local network switch or other networking device.
2. Connect the other end of the Ethernet cable to the **X0 (LAN)** port on your Dell SonicWALL NSA appliance.

## Connecting the WAN Port

1. Connect one end of an Ethernet cable to your Internet connection.  
If you have a router, DSL modem, or cable modem, connect the Ethernet cable to a LAN port on the router or modem.
2. Connect the other end of the Ethernet cable to the **X1 (WAN)** port on your Dell SonicWALL NSA appliance.

## Testing Your Internet Connection

Use the following steps to test your Internet connection:

1. After you exit the Setup Wizard, connect your computer to the X0 (LAN) port.
2. Point your browser to the X0 IP address configured during initial setup, or to the default <<http://192.168.168.168>>.
3. When the log in page appears, log into the SonicOS management interface as *admin*, using the configured password or the default, *password*.
4. Open a command prompt window on your computer and enter the command: `ping sonicwall.com`
5. Open another Web browser and navigate to: <<http://www.sonicwall.com>>.

If you can view the Dell SonicWALL home page, you have configured your Dell SonicWALL NSA 6600 correctly.

If you cannot view the Dell SonicWALL home page, try one of these solutions:

- Renew your management station DHCP address or restart your management station to accept new network settings from the DHCP server in the Dell SonicWALL appliance.
- Restart your Internet router to communicate with the DHCP client in the Dell SonicWALL appliance.



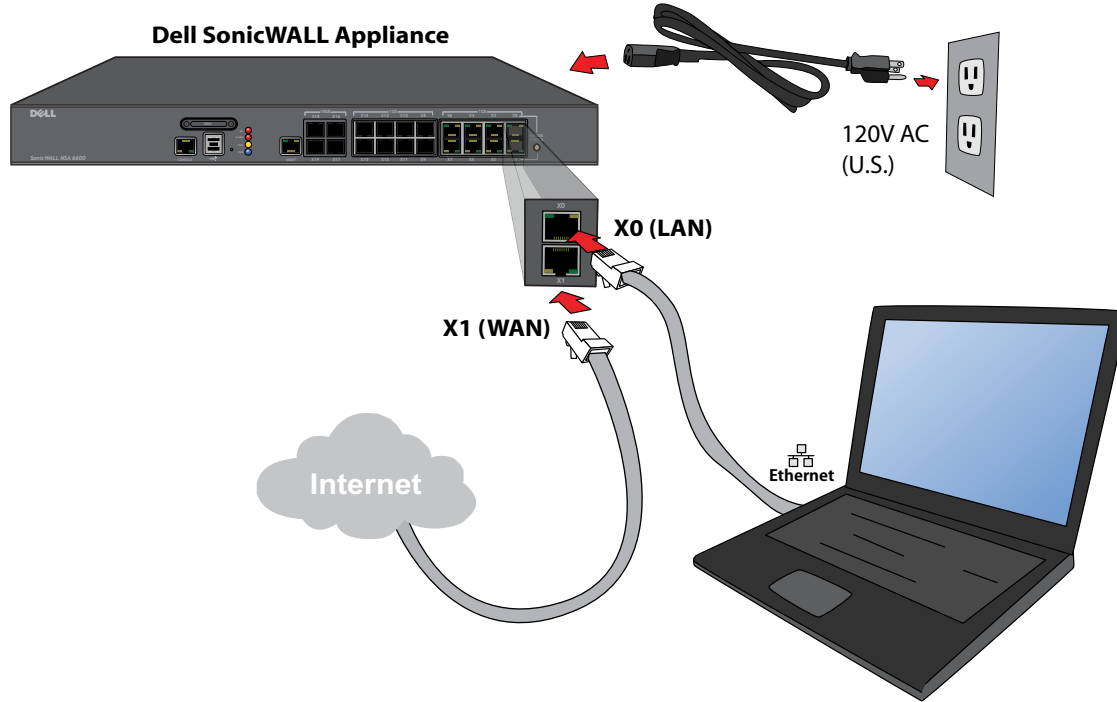
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**Note:** WAN connectivity issues are unrelated to completion of the MySonicWALL registration process.

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## Internet Access

The diagram below illustrates how to connect your computer to the Dell SonicWALL NSA 6600 appliance for Internet access.



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## Troubleshooting Your Connections

Use the suggestions in this section to troubleshoot your MGMT and LAN connections.

### Troubleshooting Your MGMT Connection

If you cannot connect to the Dell SonicWALL NSA 6600 or the Setup Wizard does not display, consider the following:

- Did you correctly enter the Dell SonicWALL NSA 6600 management IP address beginning with “http://” or “https://” in your Web browser?
- Did you try restarting your management station while it is connected to the Dell SonicWALL appliance?
- Are the Local Area Connection settings on your computer set to a static IP address on the 192.168.1.0/24 subnet?
- Is the Ethernet cable connected to your computer and to the MGMT port on your appliance?
- Is the connector clip on your network cable properly seated in the port of the security appliance?

### Troubleshooting Your LAN Connection

If you do not see the SonicOS log in prompt when you point your browser to the X0 (LAN) IP address, consider the following:

- Did you correctly enter the IP address for the Dell SonicWALL NSA 6600 X0 interface into your Web browser, beginning with “http://” or “https://”?
- Did you try restarting your management station while it is connected to the Dell SonicWALL appliance?
- Are the Local Area Connection settings on your computer set to one of the following?:
  - Obtain an IP address automatically using DHCP
  - A static IP address on the default LAN subnet (192.168.168.0/24)
  - A static IP address on the configured LAN subnet if you changed it during initial setup
- Do you have the Ethernet cable connected to your computer and to the X0 (LAN) port on your appliance?
- Is the connector clip on your network cable properly seated in the port of the security appliance?



## In this Section:

This section provides instructions for registering, licensing, and upgrading firmware on your Dell SonicWALL NSA 6600 appliance.

- [Using MySonicWALL, page 22](#)
- [Creating a MySonicWALL Account, page 22](#)
- [Registration Overview, page 23](#)
- [Registering in SonicOS, page 23](#)
- [Alternative Registration Options, page 24](#)
- [Security Services and Software, page 25](#)
- [Activating & Managing Licenses Using MySonicWALL, page 26](#)
- [Upgrading Firmware, page 27](#)



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**Note:** *Registration is an important part of the setup process and is necessary in order to receive the benefits of Dell SonicWALL security services, firmware updates, and technical support.*

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## Using MySonicWALL

Dell SonicWALL requires a MySonicWALL account prior to configuring your appliance. If you already have a MySonicWALL account, you can continue to [Registration Overview, page 23](#).

MySonicWALL is used during registration of your Dell SonicWALL appliance and to activate or purchase licenses for security services, support, or software specific to your Dell SonicWALL device.

For a High Availability configuration, MySonicWALL provides a way to associate a secondary unit that can share security service licenses with your primary appliance.



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**Note:** *MySonicWALL registration information is not sold or shared with any other company.*

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## Creating a MySonicWALL Account

A MySonicWALL account is required in order to register the Dell SonicWALL NSA 6600 appliance. Create a new MySonicWALL account from any computer by navigating to: <http://www.mysonicwall.com>.

To create a MySonicWALL account:

1. In your Web browser, navigate to <http://www.mysonicwall.com>.
2. In the **Login** screen, click the **Register Now** link.

3. Complete the Registration form, and then click **Register**.
4. Verify that the information is correct, and then click **Submit**.
5. To confirm your account was created, click **Continue**.

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## Registration Overview

Although there are several ways to register your new Dell SonicWALL appliance, Dell SonicWALL recommends registering your appliance through the SonicOS management interface.

This section describes how to register and license your appliance through SonicOS, as well as the alternate options available on MySonicWALL.



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**Note:** *If you haven't created a MySonicWALL account, see [Creating a MySonicWALL Account, page 22](#).*

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## Registering in SonicOS

After you have completed the Setup Wizard and can successfully connect to your Dell SonicWALL NSA 6600 appliance, you are ready to register the security appliance.

1. Log into your Dell SonicWALL appliance. Use the defaults: <<http://192.168.168.168>> and admin / password, or if you changed these fields during the initial setup process, use the new IP address and credentials. Then, click **Login**.
2. Navigate to the **System > Status** page.  
A message displays at the top of the screen that your Dell SonicWALL appliance is not registered. Click the **Register** link.
3. Enter your MySonicWALL username and password in the appropriate fields. Then, click **Submit**.  
If you haven't created a MySonicWALL account, see [Creating a MySonicWALL Account, page 22](#).
4. In the **Licenses > License Management** page, specify a **Friendly Name** for the Dell SonicWALL appliance.
5. Complete the **Product Survey**. Then, click **Submit**.  
Acknowledge the registration completion notification by clicking **Continue**. The **Licenses > License Management** page now lists all the Security Services associated to your appliance.



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## Alternative Registration Options

If you have registered your Dell SonicWALL appliance through the SonicOS interface, you can continue to [Security Services and Software, page 25](#).

Although Dell SonicWALL strongly recommends registering your appliance using the SonicOS interface, you can optionally use MySonicWALL to register your appliance.

### Registering on MySonicWALL

1. Log in to your MySonicWALL account. If you do not have an account, create one at: <http://www.mysonicwall.com>.
2. Type the Dell SonicWALL appliance serial number in the **Register a Product** field. Then, click **Next**.
3. Type a **Friendly Name** for the appliance.
4. Select the **Product Group** from the dropdown list, if available.
5. Enter the **Authentication Code**, and then click **Submit**. The Authentication Code is located on the bottom panel of your appliance.
6. Enter the requested information on the Product Survey page, then click **Submit**.

## Synchronizing Licenses Manually

To manually synchronize licenses with MySonicWALL from the SonicOS interface:

1. Log in to your appliance and navigate to the **System > Licenses** page.
2. Scroll to the Manage Security Services Online section.
3. Click the **Synchronize** button to synchronize licenses with MySonicWALL.

### Using the License Keyset

MySonicWALL provides an encrypted license keyset for each registered appliance. You can use the license keyset to manually apply all active licenses to your Dell SonicWALL appliance.

1. Log in to your MySonicWALL account and click the link for your appliance.
2. On the Services Management page, click the **View License Keyset** link.
3. Click the encrypted text, then click Ctrl+A to select the entire keyset, then copy it to your clipboard.
4. Log in to your appliance and navigate to the **System > Licenses** page.
5. Scroll down to the Manual Upgrade section and enter the keyset in the appropriate field.
6. When finished entering the keyset, click **Submit**.

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## Security Services and Software

The **My Products > Product Management** page in MySonicWALL lists security services, support options, and software that you can purchase or try with a free trial. For details, click the Name of the product. The Service Management page displays with the most recent details.

### Licensing Security Services

To license a security service, complete one of the following from the MySonicWALL **Service Management** page:

- **Free Trial of Service**—Click the Try icon in the Action column for the security service you wish to try for a 30-day free trial. The free trial immediately activates and notifies you of the trial expiration date. The Service Management page displays updated information about the free trial service.
- **Purchase a Service**—Click the Cart icon to purchase a security service. In the Buy Service page, specify the quantity of licenses wanted, then click **Add to Cart**. Once the item(s) have been added, click the **Checkout** button. Follow the instructions to complete your purchase.

The Applicable Services section lists the services available for your product. The Status of a service indicates whether the service is Licensed, Not Licensed, or Expired. The Action column lets you purchase or activate additional services.

The following products and services are available for the Dell SonicWALL NSA 6600:

- Service Bundles:
  - Comprehensive Gateway Security Suite
  - McAfee: Client/Server Anti-Virus Suite
- Gateway Services:
  - AppControl & Visualization
  - Gateway AV / Anti-Spyware / Intrusion Prevention Service
  - Content Filtering: Premium Edition
  - Stateful High Availability
  - Comprehensive Anti-Spam Service (CASS)
  - Deep Packet Inspection for SSL (DPI-SSL)
- Desktop & Server Software:
  - McAfee Enforced Client Anti-Virus and Anti-Spyware
  - Client Content Filtering
  - Global VPN Client Enterprise
  - WAN Acceleration Software
  - WAN Acceleration Client
  - Virtual Assist
  - Analyzer
  - SSL VPN Client License
  - Scrutinizer
- Support Services:
  - Dynamic Support 24x7
  - Software and Firmware Updates
  - Hardware Warranty

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## Activating & Managing Licenses Using MySonicWALL

If you registered your appliance through SonicOS, all licensed services are already activated. You can continue to [Upgrading Firmware, page 27](#).

If you purchased a service subscription or upgrade from a sales representative separately, you will have an Activation Key for the service. This key is emailed to you after online purchases, or is on the front of the certificate that was included with your purchase.

To activate your service licenses, log in to your MySonicWALL account and perform the following tasks:

1. In the MySonicWALL My Products page, click the appliance **Name**. The **Applicable Services** table displays a list of services that are already licensed on your Dell SonicWALL appliance.  
Note that your initial purchase may have included security services or other software bundled with the appliance. These licenses are enabled on MySonicWALL when the appliance is delivered to you.
2. Locate the service in the **Applicable Services** section and click the key icon to activate the service.
3. Type or paste your key into the **Activation Key** field, and then click **Submit**.  
After activating the service, you will see a **Status** and **Expiration** date in the respective columns when you return to the **Service Management** page.

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## Upgrading Firmware

Dell SonicWALL recommends that you run the latest available firmware on your security appliance. You will need to upgrade the factory-installed firmware to the latest version available on MySonicWALL.

The following procedures are for upgrading an existing SonicOS firmware image to a newer version:

- [Saving a Backup Copy of Your Preferences, page 27](#)
- [Obtaining the Latest Firmware, page 28](#)
- [Upgrading the Firmware, page 28](#)
- [Using SafeMode to Upgrade Firmware, page 29](#)

## Saving a Backup Copy of Your Preferences

Before beginning the update process, make a system backup on your Dell SonicWALL appliance. The backup feature saves a copy of the current system state, firmware, and configuration settings on your Dell SonicWALL security appliance, protecting all your existing settings in the event that it becomes necessary to return to a previous configuration state.

In addition to creating a system backup, you can export the configuration preferences file to your local management station. This file serves as an external backup of the configuration preferences, and can be imported back into the Dell SonicWALL security appliance if it is necessary to reboot the firmware with factory default settings.

Perform the following procedures to save a system backup on your appliance and export configuration settings to a file on your local management station:

1. On the **System > Settings** page, click **Create Backup**. SonicOS takes a “snapshot” of your current system state, firmware, and configuration preference, and makes it the new System Backup firmware image. Clicking **Create Backup** overwrites the existing System Backup image, if any. The System Backup entry displays in the **Firmware Management** table.
2. To export your settings to a local file, click **Export Settings**. A popup window displays the name of the saved file.

## Obtaining the Latest Firmware

To obtain a new SonicOS firmware image file for your Dell SonicWALL security appliance, perform the following steps:

1. In a browser on your management computer, log into your MySonicWALL account at <http://www.mysonicwall.com>.
2. In MySonicWALL, click **Downloads** in the left navigation pane to display the Download Center screen.
3. Select **NSA 6600 Firmware** in the **Software Type** dropdown list to display available firmware versions.
4. Locate the firmware version you want, and click the link to download it to a convenient location on your computer. You can download the Release Notes and other associated files in the same way.

## Upgrading the Firmware

Perform the following steps to upload new firmware to your Dell SonicWALL appliance and use your current configuration settings upon startup.



**Tip:** *The appliance must be properly registered before it can be upgraded. Refer to [Registering in SonicOS, page 23](#) for more information.*

1. Download the SonicOS firmware image file from MySonicWALL and save it to a convenient location on your local computer.
2. On the **System > Settings** page in SonicOS, click **Upload New Firmware**.
3. Browse to the location where you saved the SonicOS firmware image file, select the file and click the **Upload** button.  
After the firmware finishes uploading, it will display in the Firmware Management table.
4. Click the Boot icon in the row for **Uploaded Firmware - New!** to restart the appliance with the new firmware using your existing configuration settings.
5. In the confirmation dialog box, click **OK**. The appliance restarts and then displays the log in page.
6. Enter your user name and password. Your new SonicOS image version information is listed on the **System > Status** page.

## Using SafeMode to Upgrade Firmware

If you are unable to connect to the SonicOS management interface, you can restart the security appliance in SafeMode. The SafeMode feature allows you to recover quickly from uncertain configuration states with a simplified management interface that includes the same settings available on the **System > Settings** page.

Perform the following steps to use SafeMode to upgrade firmware on the Dell SonicWALL security appliance:

1. Connect your computer to the MGMT port on the appliance and configure your IP address with an address on the 192.168.1.0/24 subnet, such as 192.168.1.20.
2. To force the appliance into SafeMode, use a narrow, straight object, like a straightened paper clip or a toothpick, to press and hold the **Reset** button on the front of the Dell SonicWALL appliance for at least twenty seconds, until the Test light begins blinking. See [The Front Panel, page 7](#) to locate the Reset button.  
The Test light begins to blink when the Dell SonicWALL security appliance has rebooted into SafeMode.
3. Enter **192.168.1.254** into your computer's Web browser to access the SafeMode management interface.
4. Click **Upload New Firmware**, and then browse to the location where you saved the SonicOS firmware image, select the file and click the **Upload** button.

5. Select the boot icon in the row for one of the following:
  - **Uploaded Firmware - New!**  
Use this option to restart the appliance with your current configuration settings.
  - **Uploaded Firmware with Factory Default Settings- New!**  
Use this option to restart the appliance with default configuration settings.
6. In the confirmation dialog box, click **OK** to proceed.
7. To connect to SonicOS through the LAN or WAN interface of the appliance, disconnect your computer from the MGMT port, and reconfigure it to automatically obtain an IP address and DNS server address, or reset it to its normal static values.
8. Connect your computer to the local network and point your browser to the LAN or WAN IP address of the Dell SonicWALL appliance.
9. After successfully booting the firmware, the log in screen displays. If you restarted with factory default settings, enter the default user name and password (admin / password) to access the SonicOS management interface.



## In this Section:

This section provides configuration overviews, as well as deployment scenarios for your Dell SonicWALL NSA 6600.

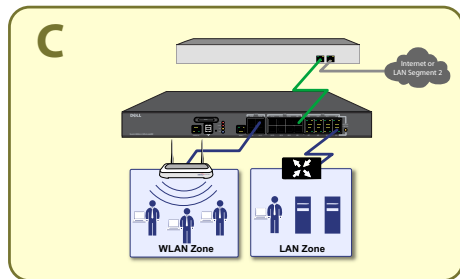
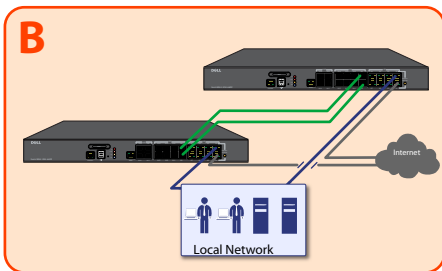
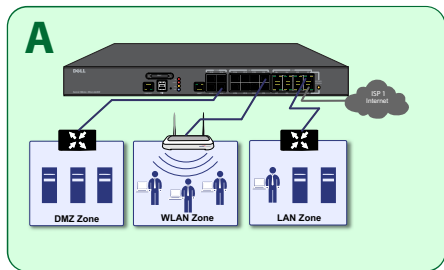
- [Advanced Deployment Scenarios, page 32](#)
- [Configuring NAT Mode Gateway, page 36](#)
- [Configuring a Stateful HA Pair, page 37](#)
- [Configuring L2 Bridge Mode, page 43](#)



# Advanced Deployment Scenarios

Select a deployment scenario that best fits your network scheme. Reference the table below and the diagrams on the following pages for help in choosing a scenario.

Current Gateway Configuration	New Gateway Configuration	Use Scenario
No gateway appliance	Single NSA appliance as a primary gateway.	<a href="#">Scenario A: NAT Mode Gateway, page 33</a>
	Pair of NSA appliances for high availability.	<a href="#">Scenario B: Stateful HA Pair, page 34</a>
Existing Internet gateway appliance	NSA as replacement for an existing gateway appliance.	<a href="#">Scenario A: NAT Mode Gateway, page 33</a>
	NSA in addition to an existing gateway appliance.	<a href="#">Scenario C: L2 Bridge Mode, page 35</a>
Existing SonicWALL gateway appliance	NSA appliance in addition to an existing Dell SonicWALL gateway appliance.	<a href="#">Scenario B: Stateful HA Pair, page 34</a>



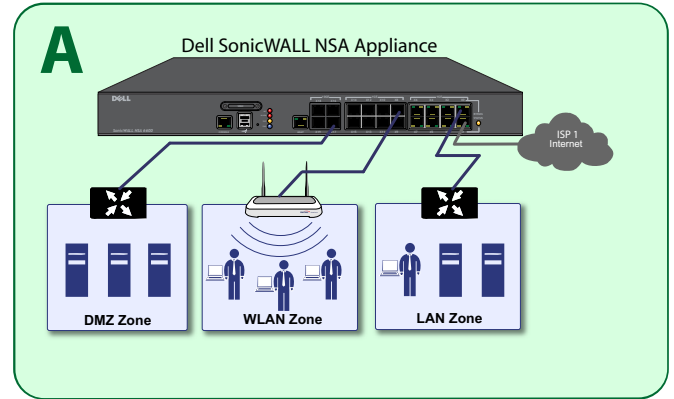
## Scenario A: NAT Mode Gateway

For new network installations or installations where the NSA 6600 is replacing the existing network gateway.

In this scenario, the NSA 6600 is configured in NAT mode to operate as a single network gateway. Two Internet connections may be routed through the Dell SonicWALL appliance for load balancing and failover purposes. Because only a single Dell SonicWALL appliance is deployed, the added benefits of high availability with a stateful synchronized pair are not available.

To set up this scenario, follow the steps covered in:

- [Configuring NAT Mode Gateway, page 36](#)



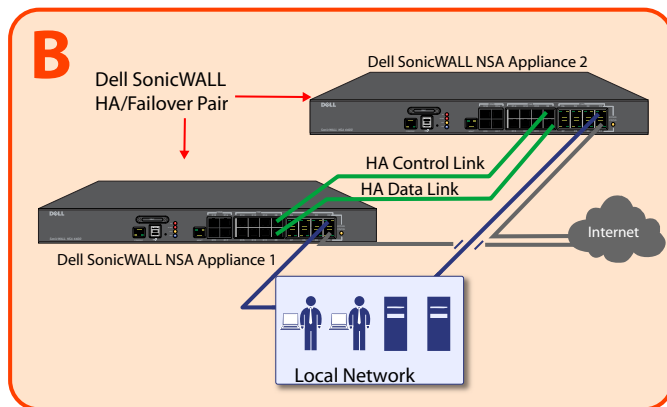
## Scenario B: Stateful HA Pair

For network installations with two Dell SonicWALL NSA 6600 appliances configured as a stateful synchronized pair for redundant High Availability (HA) networking.

In this scenario, one NSA 6600 operates as the Primary gateway device and the other NSA 6600 is in Idle mode. All network connection information is synchronized between the two devices so that the Secondary appliance can seamlessly switch to Active mode without dropping connections if the Primary device loses connectivity.

To set up this scenario, follow the steps covered in:

- [Configuring a Stateful HA Pair, page 37](#)



## Scenario C: L2 Bridge Mode

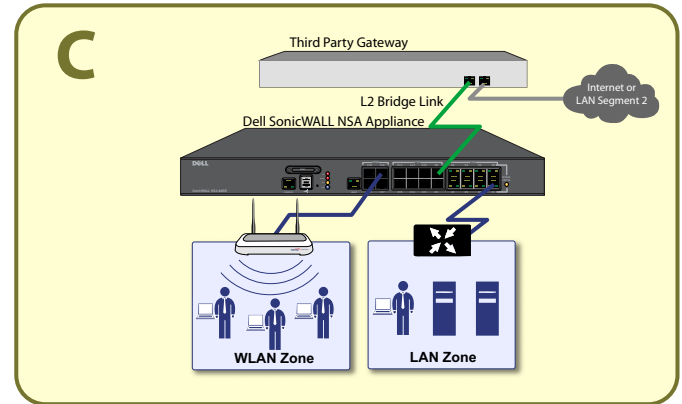
For network installations where the Dell SonicWALL NSA 6600 is running in tandem with an existing network gateway.

In this scenario, the original gateway is maintained. The Dell SonicWALL NSA 6600 is integrated seamlessly into the existing network, providing the benefits of deep packet inspection and comprehensive security services on all network traffic.

L2 Bridge Mode employs a secure learning bridge architecture, enabling it to pass and inspect traffic types that cannot be handled by many other methods of transparent security appliance integration. Using L2 Bridge Mode, a Dell SonicWALL security appliance can be non-disruptively added to any Ethernet network to provide in-line deep-packet inspection for network traffic.

To set up this scenario, follow the steps covered in:

- [Configuring L2 Bridge Mode, page 43](#)



## Configuring NAT Mode Gateway

This section provides an overview of a Dell SonicWALL NSA 6600 appliance operating as a single network gateway in NAT mode, which is the default mode for a newly configured NSA 6600. This section is relevant to administrators following deployment **Scenario A**.

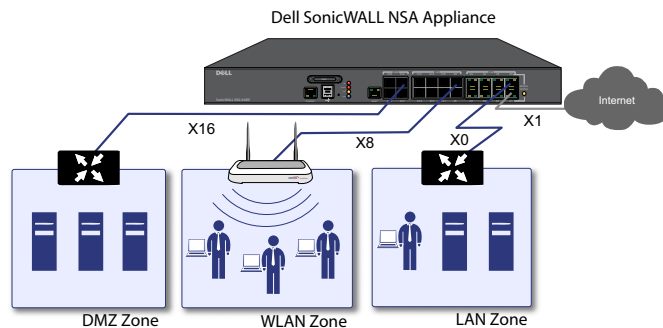


**Note:** No additional configuration is necessary to deploy your appliance as a single network gateway in Many-to-One NAT mode.

### Overview of NAT Mode

Network Address Translation (NAT) allows private IP addresses on internal networks to be mapped to at least one public IP address on the WAN interface of the Dell SonicWALL security appliance. Outbound traffic from the internal network uses many-to-one NAT address mappings for their LANs, WLANs, and other internal networks.

All traffic in SonicOS must go through both an access rule and a NAT policy, a fundamental part of the NAT Mode architecture. The NAT policy is even used for traffic that needs no IP address translation, such as traffic traveling between two different LAN interfaces, traffic on the simplest types of VPNs, or through Layer 2 Bridge Mode / Transparent Mode configurations.



The Dell SonicWALL NSA 6600 ships with the internal DHCP server active on the LAN port. However, if a DHCP server is already active on your LAN, the Dell SonicWALL appliance will disable its own DHCP server to prevent conflicts.

As shown in the illustration, ports X1 and X0 are preconfigured as WAN and LAN, respectively. The remaining ports (X2-X17) can be configured to meet the needs of your network. In the example diagram, certain interfaces are configured for specific zones:

- X1—WAN
- X0—LAN
- X12—Wireless LAN
- X16—DMZ

NAT policies allow the flexibility to control Network Address Translation based on matching combinations of Source IP address, Destination IP address, and Destination Services. Policy-based NAT allows you to deploy different types of NAT simultaneously.

For configuration procedures and information regarding the different types of NAT policies, such as Many-to-One, One-to-One, or One-to-Many Load Balancing, refer to the *SonicOS Administrator's Guide*.

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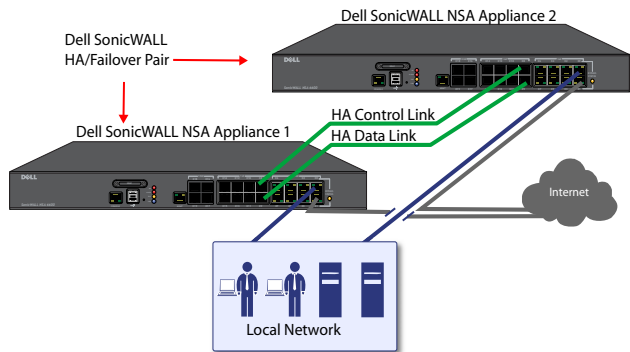
## Configuring a Stateful HA Pair

This section provides instructions for configuring a pair of Dell SonicWALL NSA 6600 appliances for Stateful High Availability (HA). This section is relevant to administrators following deployment **Scenario B**.

A Stateful HA pair operates in NAT mode by default, similar to Scenario A, with the added benefit of high availability.

See the following sections:

- [Initial High Availability Setup, page 38](#)
- [Configuring High Availability Settings, page 38](#)
- [Configuring HA Monitoring Settings, page 39](#)
- [Configuring Optional HA Settings, page 40](#)
- [Configuring HA Advanced Settings, page 40](#)
- [HA License Configuration Overview, page 41](#)
- [Completing HA Pair Association, page 41](#)
- [Verifying High Availability Setup, page 42](#)



## Initial High Availability Setup

Before you begin the configuration of HA on the Primary Dell SonicWALL security appliance, perform the following tasks:

- Determine which interfaces should be used as the HA Control Link and the HA Data Link. Remember, they must be the same ports on each appliance.
- On the bottom panel of the appliance that will run as the Secondary device, locate the serial number and write the number down. You need to enter this number in the **High Availability > Settings > HA Devices** page.
- Verify that the Primary and Secondary appliances are registered on MySonicWALL, running the same SonicOS versions.

- Ensure the Primary and Secondary security appliances' LAN, WAN, and other interfaces are properly connected for failover.
- Connect the HA Control and Data Links on the Primary and Secondary appliances with appropriate cables.
- Turn on the Primary Dell SonicWALL security appliance first. Then, turn on the Secondary Dell SonicWALL security appliance.

## Configuring High Availability Settings

The first task in setting up HA after completing [Initial Setup, page 14](#) is configuring the **High Availability > Settings** page on the Primary Dell SonicWALL security appliance. Once you configure HA on the Primary appliance, it communicates the settings to the Secondary appliance.

To configure HA on the Primary Dell SonicWALL, log in to your Primary appliance and perform the following steps:

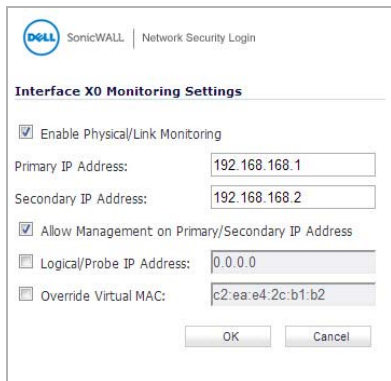
1. Navigate to the **High Availability > Settings** page.
2. On the **General** tab, select **Active / Idle** from the Mode dropdown menu.
3. Select the **Enable Stateful Synchronization** checkbox.
4. Next, navigate to the **HA Devices** tab and type in the serial number for the Secondary appliance.
5. Navigate to the **HA Interfaces** tab and specify an **HA Control Interface** and an **HA Data Interface**.
6. Click **Apply** to save these settings. All settings will be synchronized to the Secondary appliance, and the Secondary appliance will reboot.

## Configuring HA Monitoring Settings

After configuring the HA settings, you need to configure the Monitoring settings for the LAN or WAN. This includes configuring unique IP addresses for each appliance in the Stateful HA pair. You will need to log into the appliances using these IP addresses in order to complete the registration process from within SonicOS, which will allow license sharing and synchronization.

Navigate to the **High Availability > Monitoring** page to configure the Monitoring settings.

1. Click the **Configure** icon of the Interface for which you want to edit settings. The **Edit HA Monitoring** dialog box displays.



The screenshot shows the 'Interface X0 Monitoring Settings' dialog box. At the top left is the SonicWALL logo and 'Network Security Login'. The title is 'Interface X0 Monitoring Settings'. There are five rows of settings, each with a checkbox and a text input field:

- Enable Physical/Link Monitoring
- Primary IP Address:
- Secondary IP Address:
- Allow Management on Primary/Secondary IP Address
- Logical/Probe IP Address:
- Override Virtual MAC:

At the bottom are 'OK' and 'Cancel' buttons.

2. In the **Primary IP Address** field, enter the unique LAN or WAN management IP address of the Primary appliance.
3. In the **Secondary IP Address** field, enter the unique LAN or WAN management IP address of the Secondary appliance.
4. Select the **Allow Management on Primary/Secondary IP Address** checkbox.
5. *Optionally* **Enable Physical / Link Monitoring** by selecting the checkbox.
6. *Optionally* enable **Logical / Probe IP Address** by selecting the checkbox and providing the IP Address of the target host.
7. Click **OK**.

You can repeat these steps to configure Monitoring on other interfaces.

For more information regarding the optional settings, see the *SonicOS Administrator's Guide*.



## Configuring Optional HA Settings

The following settings are optional. You can configure these settings from the **High Availability > Settings** page.

1. To backup the firmware and settings when you upgrade the firmware version, select the **Generate/Overwrite Backup Firmware and Settings When Upgrading Firmware** checkbox.
2. Select the **Enable Virtual MAC** checkbox to allow the Primary and Secondary appliances to share a single MAC address. This greatly simplifies the process of updating network ARP tables and caches when a failover occurs. Only the WAN switch that the two appliances are connected to needs to be notified. All outside devices will continue to route to the single shared MAC address.
3. Click **Apply** to save any of the settings on this page.

## Configuring HA Advanced Settings

The following settings are optional. You can configure the following settings from the **High Availability > Advanced** page.

1. Adjust the **Heartbeat Interval** to control how often the two units communicate. The default and recommended minimum is 1000 milliseconds.
2. The **Failover Trigger Level** sets the number of heartbeats that can be missed before failing over. Dell SonicWALL recommends leaving this field at its default setting. This field can be tuned later as necessary for your specific network environment.

3. Set the **Probe Interval** for the interval in seconds between communication with upstream or downstream systems. Dell SonicWALL recommends that you set the interval for at least 5 seconds. You can set the Probe IP Address(es) on the **High Availability > Monitoring** screen.
4. Set the **Probe Count**, which is the number of consecutive probes before the appliance considers the network path unreachable or broken. The default count is 3.
5. The **Election Delay Time** is the number of seconds allowed for internal processing between the two units in the HA pair before one of them takes the primary role. Dell SonicWALL recommends leaving this field at its default setting. This field can be tuned later as necessary for your specific network environment.
6. Enable the **Active / Idle Failover only when ALL aggregate links are down** checkbox to treat the aggregated link as down (causing a failover) only if all member links are down.
7. Select the **Include Certificates/Keys** checkbox to have the appliances synchronize all certificates and keys.
8. Click **Synchronize Settings** to synchronize the settings between the Primary and Secondary appliances.
9. Click **Synchronize Firmware** if you previously uploaded new firmware to your Primary appliance while the Secondary appliance was offline, and it is now online and ready to upgrade to the new firmware.  
**Synchronize Firmware** is typically used after taking your Secondary appliance offline while you test a new firmware version on the Primary appliance before upgrading both appliances to it.

10. Click **Force Active / Idle Failover** to force a failover between your Primary and Secondary appliances.
11. Click **Accept** to retain the settings on this screen.

## HA License Configuration Overview

You can configure HA license synchronization by associating two Dell SonicWALL security appliances as HA Primary and HA Secondary on MySonicWALL.

You must purchase a single set of security service licenses for the HA Primary appliance. To use Stateful HA, you must first activate the Stateful High Availability Upgrade license for the primary unit in SonicOS. This is automatic if your appliance is connected to the Internet. See [Registering, Licensing, and Upgrading, page 21](#).

License synchronization is used during HA so that the Secondary appliance can maintain the same level of network protection provided before the failover.

## Completing HA Pair Association

You will need to associate the two appliances on MySonicWALL. The second appliance will automatically share the Security Services licenses of the primary appliance.

If the second appliance has not yet been registered, follow the steps listed in [Registering on MySonicWALL, page 24](#) to register it. This is necessary to make it available for HA association with the Primary.

Once both appliances are registered, you can then follow the steps below to associate the two Dell SonicWALL appliances.

1. Log in to your MySonicWALL account.
2. Click **My Products** from the left navigation bar.
3. On the My Products page, scroll down to find the appliance that you want to use as the parent, or Primary, appliance. Click the product **Name** or **Serial Number**.
4. On the Service Management page, scroll down to the Associated Products section.
5. Under Associated Products, click **HA Secondary**.
6. On the My Product page, in the text boxes under Associate New Products, type the **Serial Number** and the **Friendly Name** of the appliance that you want to associate as the child, or Secondary, appliance.
7. Select the group from the **Product Group** dropdown list. The product group setting specifies the MySonicWALL users who can upgrade or modify the appliance.
8. Click **Associate**.

9. Log in to the SonicOS management interface of the Primary appliance using the unique IP address assigned on the **High Availability > Monitoring** page.
10. Navigate to the **System > Status** page and click the registration link. This allows the unit to synchronize with the Dell SonicWALL license server and share licenses with the associated appliance.
11. Then, log in to the SonicOS management interface of the Secondary appliance using its unique IP address.
12. Navigate to the **System > Licenses** page and click the **Synchronize Licenses** button. This ensures that both the Primary and Secondary appliances successfully synchronize with the Dell SonicWALL license server and share licenses.

This completes the HA association on MySonicWALL and ensures that both appliances can share licenses.

## Verifying High Availability Setup

Once you have configured the HA settings on the Primary Dell SonicWALL appliance, log in to the Primary appliance's unique LAN/WAN IP address. Note that the management interface displays **Logged Into: Primary Dell SonicWALL Status: Active** in the upper right-hand corner.

To verify that the Primary and Secondary Dell SonicWALL security appliances are functioning correctly, wait a few minutes, then turn off the Primary device. The Secondary security appliance should quickly take over.

From your management workstation, test connectivity through the Secondary appliance by accessing a site on the public Internet – note that the Secondary appliance, when active, assumes the complete identity of the Primary, including its IP addresses and Ethernet MAC addresses.

Log into the Secondary Dell SonicWALL appliance's unique LAN/WAN IP address. The management interface should now display **Logged Into: Secondary Dell SonicWALL Status: Active** in the upper right-hand corner.

Now, turn the Primary appliance back on, wait a few minutes, then log back into the management interface. If stateful synchronization is enabled (automatically disabling preempt mode), the management GUI should still display **Logged Into: Backup Dell SonicWALL Status: Active** in the upper-right-hand corner.

If you are using the Physical/Logical Monitoring feature, experiment with disconnecting each monitored link to ensure correct configuration.

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## Configuring L2 Bridge Mode

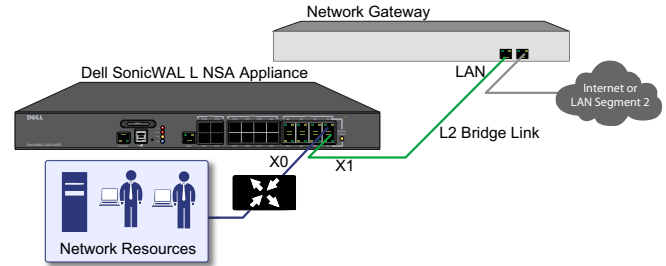
This section provides instructions to configure the Dell SonicWALL NSA 6600 appliance in tandem with an existing Internet gateway device. This section is relevant to users following deployment **Scenario C**.

See the following sections:

- [Connection Overview, page 43](#)
- [Configuring the Primary Bridge Interface, page 43](#)
- [Configuring the Secondary Bridge Interface, page 44](#)

## Connection Overview

Connect the X1 port on your Dell SonicWALL NSA 6600 to the LAN port on your existing Internet gateway device. Then connect the X0 port on your Dell SonicWALL to your LAN resources.



## Configuring the Primary Bridge Interface

The primary bridge interface is connected to your existing Internet gateway device. The only step involved in setting up your primary bridge interface is to ensure that the WAN interface is configured for a static IP address. You will need this static IP address when configuring the secondary bridge.

Note that the primary bridge interface *must* have a static IP assignment.

## Configuring the Secondary Bridge Interface

1. Navigate to the **Network > Interfaces** page from the navigation panel.
2. Click the Configure icon in the right column of the X0 (LAN) interface.

General Advanced VLAN Filtering

**Interface 'X0' Settings**

Zone: LAN

Mode / IP Assignment: Layer 2 Bridged Mode (IP Rou)

Bridged to: X1

Block all non-IPv4 traffic

Never route traffic on this bridge-pair

Only sniff traffic on this bridge-pair

Disable stateful-inspection on this bridge-pair

Comment: Default LAN

Management:  HTTPS  Ping  SNMP  SSH

User Login:  HTTP  HTTPS

Add rule to enable redirect from HTTP to HTTPS

3. In the **IP Assignment** drop-down, select **Layer 2 Bridged Mode**.
4. In the **Bridged to** drop-down, select the **X1** interface.

5. Configure management options (HTTP, HTTPS, Ping, SNMP, SSH, User log ins, or HTTP redirects).



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**Note:** Do not enable **Never route traffic on this bridge-pair** unless your network topology requires that all packets entering the L2 Bridge remain on the L2 Bridge segments. You may optionally enable the **Block all non-IPv4 traffic** setting to prevent the L2 bridge from passing non-IPv4 traffic.

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## In this Section:

This section provides overviews of customer support and training options for the Dell SonicWALL NSA 6600.

- [Customer Support, page 46](#)
- [Knowledge Portal, page 46](#)
- [User Forums, page 47](#)
- [Training, page 47](#)
- [Related Documentation, page 48](#)
- [Additionally Supported Languages, page 48](#)

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## Customer Support

Designed for customers with Dell SonicWALL NSA solutions, Dell SonicWALL 24x7 Support is an around-the-clock support service that includes phone, email and Web-based technical support, software and firmware updates and upgrades and Advance Exchange hardware replacement. Please Note: Continuous support is recommended on all NSA products.

For further information, visit:

<http://www.sonicwall.com/us/en/support/Services.html>

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## Knowledge Portal

The Knowledge Portal is a resource which allows users to search for Dell SonicWALL documents based on the following types of search tools:

- Browse
- Search for keywords
- Full-text search

For further information, visit:

[<http://www.sonicwall.com/us/support/kb.asp>](http://www.sonicwall.com/us/support/kb.asp)

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## User Forums

The Dell SonicWALL User Forums is a resource that provides users the ability to communicate and discuss a variety of security and appliance subject matters. In this forum, the following categories are available for users:

- Firewall
- Networking
- Installation / Upgrading
- VPN and VPN Client
- SonicPoint and Wireless
- 3G/4G WAN
- Security Services
- GMS and Analyzer
- Secure Remote Access (E-Class / SMB)
- Mobile Connect
- Email Security
- Continuous Data Protection
- Scrutinizer
- WAN Acceleration (WXA)

For further information, visit:

<https://forum.sonicwall.com/>

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## Training

Dell SonicWALL offers an extensive sales and technical training curriculum for Network Administrators, Security Experts and Dell SonicWALL Medallion Partners who need to enhance their knowledge and maximize their investment in Dell SonicWALL Products and Security Applications. Dell SonicWALL Training provides the following resources for its customers:

- E-Training
- Instructor-Led Training
- Custom Training
- Technical Certification
- Authorized Training Partners

For further information, visit:

<http://training.sonicwall.com/>



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## Related Documentation

See the following related documents for more information:

- Dell SonicWALL SonicOS Administrator's Guide
- Dell SonicWALL SonicOS Release Notes
- Dell SonicWALL Feature Modules
  - Application Intelligence and Control
  - Application Bandwidth Management
  - IPFIX/Netflow Reporting
  - Deep Packet Inspection for SSL
  - Multiple Administrators
  - NAT Load Balancing
  - Packet Capture
  - RF Management
  - Single Sign On
  - SSL Control
  - Virtual Access Points
- Dell SonicWALL Global VPN Client Administrator's Guide
- Dell SonicWALL GAV Administrator's Guide
- Dell SonicWALL IPS Administrator's Guide
- Dell SonicWALL Anti-Spyware Administrator's Guide

For further information, visit:

<http://www.sonicwall.com/us/support.html>

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## Additionally Supported Languages

Dell SonicWALL Getting Started Guides, Quick Start Guides, User Guides, appliance firmware, and various end-user clients are now available in multiple languages.

After registering your product, you can check for applicable firmware or end-user client software on MySonicWALL. New releases are posted as they become available, so please check periodically for additional firmware, software, and documents.

### 本地化固件和文档通知

Dell SonicWALL 《入门指南》、《快速入门指南》、《用户指南》、设备固件和多种终端用户客户端现已支持多种语言。请从 <http://www.sonicwall.com/cn/downloads.html> 查找可用的中文文档。

请按照《入门指南》或《快速入门指南》中的说明，在 MySonicWALL 网站 <http://www.mvsonicwall.com> 注册您的设备。注册完成后，您可以在 MySonicWALL 网站查看相应的固件和终端用户客户端软件。我们会在第一时间发布可用的新版本，请定期检查以获取最新的固件、软件和文档。

## ローカライズ版ファームウェアおよびドキュメントについて

Dell SonicWALL 導入ガイド、クイック スタート ガイド、ユーザガイド、装置用ファームウェア、および多彩なエンドユーザクライアントが複数の言語で利用できるようになりました。利用可能な日本語ドキュメントは、[http://www.sonicwall.com/japan/documents/support\\_document.html](http://www.sonicwall.com/japan/documents/support_document.html) をご覧下さい。

導入ガイドまたはクイック スタート ガイドの手順に沿って、MySonicWALL (<http://www.mysonicwall.com>) で製品を登録します。製品の登録後に、利用可能なファームウェアまたはエンドユーザクライアントを MySonicWALL 上で確認できます。新しいリリースは利用可能になると公開されるので、ファームウェア、ソフトウェア、およびドキュメントを定期的に確認してください。

## 펌웨어 및 문서 한글화 안내

Dell SonicWALL Getting Started 가이드, Quick Start 가이드, 사용자 가이드, 어플라이언스 펌웨어 및 다양한 엔드유저 클라이언트가 다국어를 지원합니다. 다음에서 사용 가능한 한국어 문서를 찾아 보세요. <http://www.sonicwall.com/apac/en/ko/documents.html>.

Getting Started 가이드 또는 Quick Start 가이드에 있는 절차에 따라 <http://www.mysonicwall.com> 에서 제품 등록을 하세요. 제품 등록 후, MySonicWALL 에서 적용 가능한 한국어 펌웨어 또는 사용자 클라이언트 소프트웨어를 확인할 수 있습니다. 새로운 버전은 사용 가능할 때 등록됩니다. 그러므로, 추가되는 한국어 펌웨어, 소프트웨어와 문서가 있는지 주기적으로 체크하세요.

## Notificação de Firmware e Documentação Localizada

As Guias de noções básicas, Guias de início rápido, Guias de Usuário, firmware de aplicações, e varios clientes de usuário final de Dell SonicWALL estão agora disponíveis em varias línguas. Pode encontrar a documentação disponível em Português em <http://www.sonicwall.com/br/pt/>.

Siga as instruções da Guia de noções básicas ou Guia de início rápido para registrar seu produto em MySonicWALL no <http://www.mysonicwall.com>. Depois de registrar o produto, você pode procurar firmware ou clientes de usuário final aplicáveis em MySonicWALL. Novos lançamentos são publicados tão pronto estejam disponíveis, assim que por favor visite periodicamente esta página para ver firmware, software e documentos adicionais.

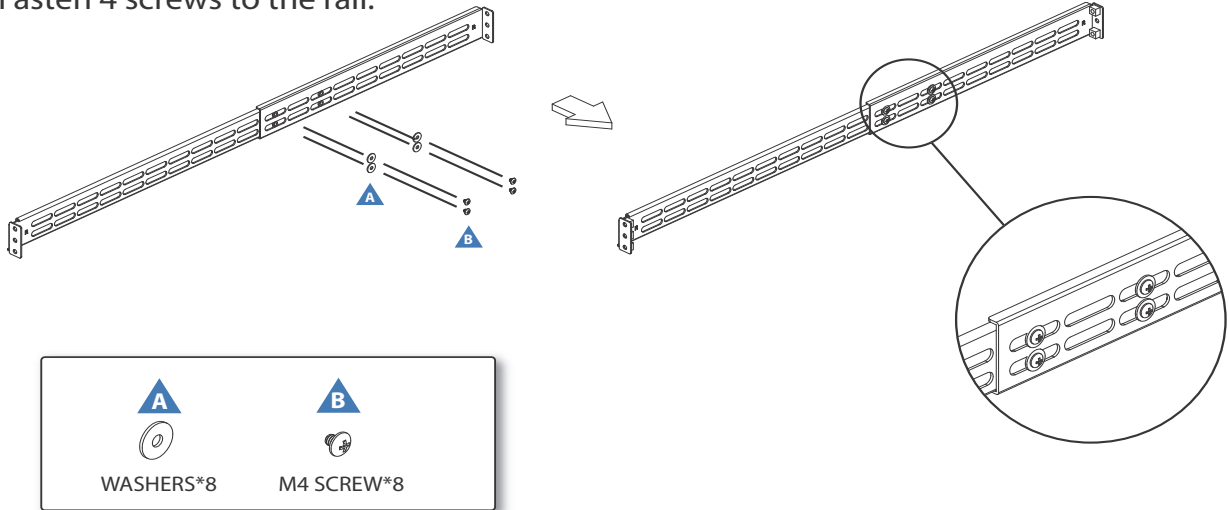
## In this Section:

This section provides illustrated rack mounting instructions for the Dell SonicWALL NSA 6600. For more information on rack mounting requirements, see [Product Safety and Regulatory Information, page 57](#).

# Rack Mounting Instructions

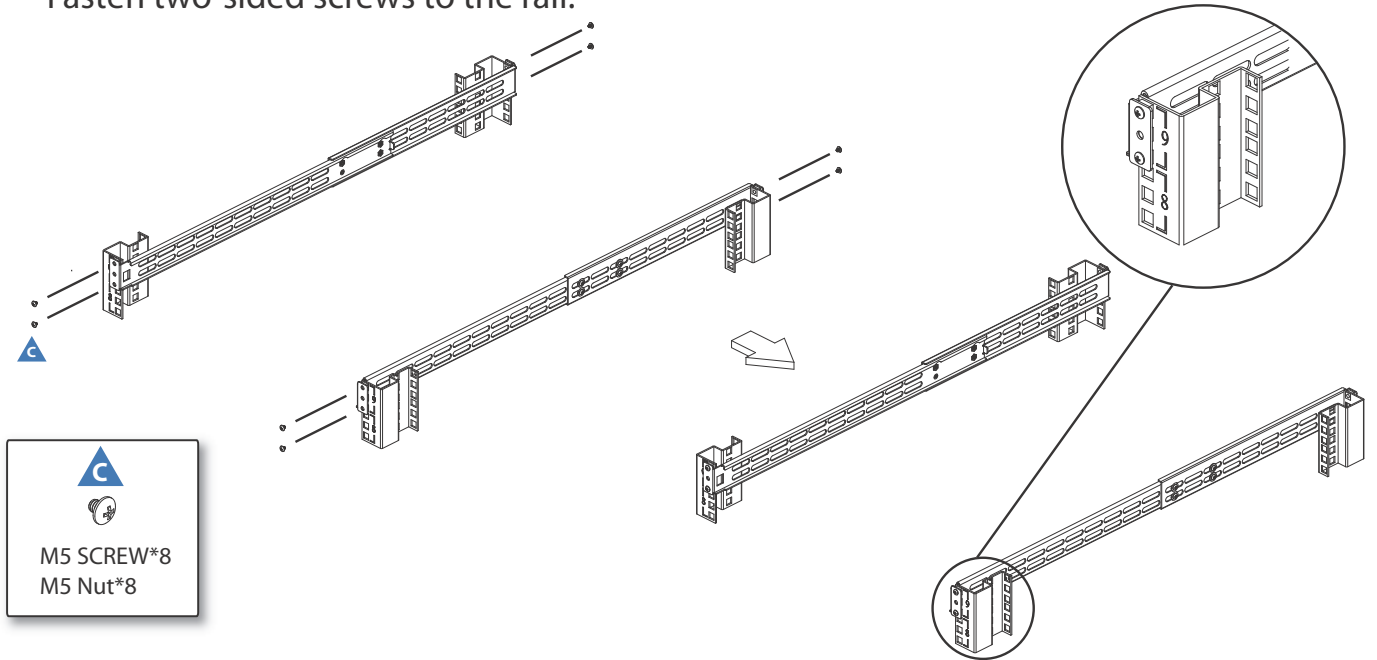
## Assemble the Slide Rail

Fasten 4 screws to the rail.



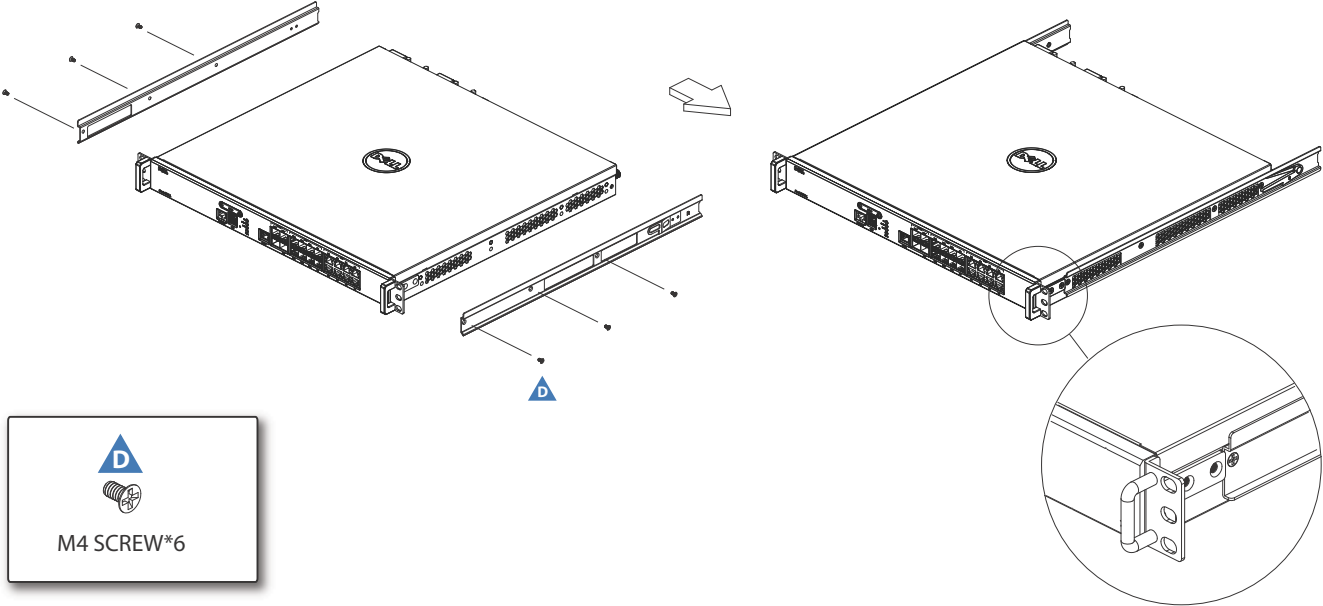
## Assemble the Slide Rail

Fasten two-sided screws to the rail.



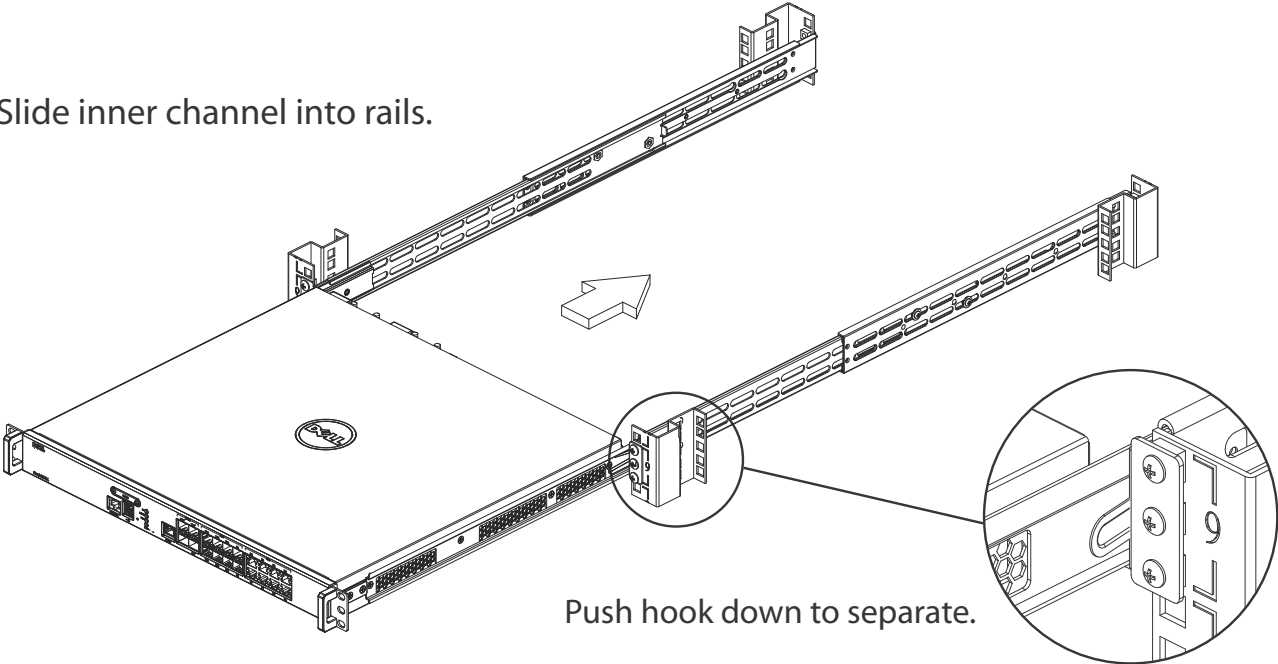
# Assemble Inner Rail to Chassis

Fasten 6 screws to attach the inner channel onto the chassis.



# Insert Chassis to Frame

Slide inner channel into rails.



Push hook down to separate.





## In this Section:

This section provides regulatory along with trademark and copyright information.

- [Safety and Regulatory Information, page 58](#)
- [Warranty Information, page 62](#)
- [Copyright Notice, page 62](#)

# Safety and Regulatory Information

Regulatory Model/Type	Product Name
1RK27-0A5	NSA 6600

## Safety Instructions

The following conditions are required for proper installation:

- The Dell SonicWALL appliance is designed to be mounted in a standard 19-inch rack mount cabinet.
- Use the mounting hardware recommended by the rack manufacturer and ensure that the rack is adequate for the application.
- Ensure that no water or excessive moisture can enter the unit.
- Allow unrestricted airflow around the unit and through the vents on the side of the unit. A minimum of 1 inch (25.44mm) clearance is recommended.
- Route cables away from power lines, fluorescent lighting fixtures, and sources of noise such as radios, transmitters, and broadband amplifiers.
- This product is not intended to be installed and used in a home or public area accessible to the general population. When installed in schools, this equipment must be installed in a secure location accessible only by trained personnel.
- Mount in a location away from direct sunlight and sources of heat. A maximum ambient temperature of 104° F (40° C) is recommended.
- If installed in a closed or multi-rack assembly, the operating ambient temperature of the rack environment may be greater than the room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum recommended ambient temperature.
- Mount the Dell SonicWALL appliances evenly in the rack in order to prevent a hazardous condition caused by uneven mechanical loading.
- Four mounting screws, compatible with the rack design, must be used and hand-tightened to ensure secure installation. Choose a mounting location where all four mounting holes line up with those of the mounting bars of the 19-inch rack mount cabinet.
- A suitably rated and approved branch circuit breaker shall be provided as part of the building installation. Follow local code when purchasing materials or components.
- Consideration must be given to the connection of the equipment to the supply circuit. Appropriate consideration of equipment nameplate ratings must be used when addressing this concern. Do not overload the circuit.

- Reliable grounding of rack-mounted equipment must be maintained. Particular attention must be given to power supply connections other than direct connections to the branch circuits, such as power strips.
- The included power cord is approved for use only in specific countries or regions. Before using a power cord, verify that it is rated and approved for use in your location.
- Thumbscrews should be tightened with a tool after both installation and subsequent access to the rear of the product.



### Warning of Potential Hazard from Fan

- Before replacing the fan unit, carefully read and follow the instructions provided with the unit.

## Lithium Battery Warning

The Lithium Battery used in the Dell SonicWALL Internet security appliance may not be replaced by the user. The appliance must be returned to a Dell SonicWALL authorized service center for replacement with the same or equivalent type recommended by the manufacturer. If, for any reason, the battery or Dell SonicWALL Internet security appliance must be disposed of, do so following the battery manufacturer's instructions.

## Cable Connections

All Ethernet and RS232 (Console) cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the Dell SonicWALL is located.

## Sicherheitsanweisungen

Für eine ordnungsgemäße Montage sollten die folgenden Hinweise beachtet werden:

- Das Dell SonicWALL Modell ist für eine Montage in einem standardmäßigen 19-Zoll-Rack konzipiert.
- Vergewissern Sie sich, dass das Rack für dieses Gerät geeignet ist und verwenden Sie das vom Rack-Hersteller empfohlene Montagezubehör.
- Stellen Sie sicher, dass das Gerät vor Wasser und hoher Luftfeuchtigkeit geschützt ist.
- Stellen Sie sicher, dass die Luft um das Gerät herum zirkulieren kann und die Lüftungsschlitze an der Seite des Gehäuses frei sind. Hier ist ein Belüftungsabstand von mindestens 26 mm einzuhalten.
- Achten Sie darauf, dass sich die Netzkabel nicht in der unmittelbaren Nähe von Stromleitungen, Leuchtstoffröhren und Störquellen wie Funksendern oder Breitbandverstärkern befinden
- Dieses Produkt ist nicht dafür entwickelt, um in Bereichen mit öffentlichem Zugang betrieben zu werden. Wenn es in Schulen betrieben wird, stellen Sie sicher, dass das Gerät in einem abgeschlossenen Raum installiert wird, der nur von speziell ausgebildetem Personal betreten werden kann.
- Wählen Sie für die Montage einen Ort, der keinem direkten Sonnenlicht ausgesetzt ist und sich nicht in der Nähe von Wärmequellen befindet. Die Umgebungstemperatur darf nicht mehr als 40 °C betragen.
- Wenn das Gerät in einem geschlossenen 19"-Gehäuse oder mit mehreren anderen Geräten eingesetzt ist, wird die Temperatur in der Gehäuse höher sein als die Umgebungstemperatur. Achten Sie darauf, daß die Umgebungstemperatur nicht mehr als 40° C beträgt.
- Bringen Sie die Dell SonicWALL waagrecht im Rack an, um mögliche Gefahren durch ungleiche mechanische Belastung zu vermeiden.
- Verwenden Sie für eine sichere Montage vier passende Befestigungsschrauben, und ziehen Sie diese mit der Hand an. Wählen Sie einen Ort im 19-Zoll-Rack, wo alle vier Befestigungen der Montageschienen verwendet werden.
- Ein angemessen dimensionierter und geprüfte Sicherung, sollte Bestandteil der Haus-Installation sein. Bitte folgen die den lokalen Richtlinien beim Einkauf von Material oder Komponenten.
- Prüfen Sie den Anschluss des Geräts an die Stromversorgung, damit der Überstromschutz sowie die elektrische Leitung nicht von einer eventuellen Überlastung der Stromversorgung beeinflusst werden. Prüfen Sie dabei sorgfältig die Angaben auf dem Aufkleber des Geräts. Überlasten Sie nicht den Stromkreis.
- Eine sichere Erdung der Geräte im Rack muss gewährleistet sein. Insbesondere muss auf nicht direkte Anschlüsse an Stromquellen geachtet werden wie z. B. bei Verwendung von Mehrfachsteckdosen.
- Das im Lieferumfang enthaltene bzw. die im Lieferumfang enthaltenen Netzkabel sind nur für die Verwendung in bestimmten Ländern und Regionen zugelassen. Überprüfen Sie bitte vor der Verwendung eines Netzkabels, ob es

für die Verwendung in Ihrem Land oder Ihrer Region zugelassen ist und den geforderten Normen entspricht.

- Vergewissern Sie sich, dass die Schrauben nach dem Austausch mit entsprechendem Werkzeug fest angezogen werden.



### Achtung—Lüfter Potentielle Gefahrenquelle

- Lesen Sie vor dem Austausch der Lüftereinheit die Anleitung, die mit dem Gerät geliefert wurde und befolgen Sie die Anweisungen.

### Hinweis zur Lithiumbatterie

Die in der Internet Security Appliance von Dell SonicWALL verwendete Lithiumbatterie darf nicht vom Benutzer ausgetauscht werden. Zum Austauschen der Batterie muss die Dell SonicWALL in ein von Dell SonicWALL autorisiertes Service-Center gebracht werden. Dort wird die Batterie durch denselben oder entsprechenden, vom Hersteller empfohlenen Batterietyp ersetzt. Beachten Sie bei einer Entsorgung der Batterie oder der Dell SonicWALL Internet Security Appliance die diesbezüglichen Anweisungen des Herstellers.

### Kabelverbindungen

Alle Ethernet- und RS232-C-Kabel eignen sich für die Verbindung von Geräten in Innenräumen. Schließen Sie an die Anschlüsse der Dell SonicWALL keine Kabel an, die aus dem Gebäude in dem sich das Gerät befindet herausgeführt werden.

## 安全說明

需要滿足以下條件以進行正確安裝：

- 戴爾 SonicWALL 設備被設計成安裝在一個標準的 19 吋機架安裝櫃。需要滿足以下條件以進行正確安裝：
- 使用機架製造商推薦的裝載硬體，確認機架足夠裝置所需
- 請確認裝置內不會滲入水分或過多的濕氣。
- 裝置週邊請保持通風，特別是裝置通風口側。建議裝置與牆壁間至少要有 1 英吋 (25.44 公釐) 的淨空。
- 纜線的路徑應遠離電源線、日光燈，以及會產生雜訊的來源，如無線電、發送器與寬頻放大器。
- 本產品的設計目的不是安裝並使用於住家或一般大眾可接觸到的公共區域。如果是安裝在學校，本設備只能安裝在受訓人員能接觸到的安全位置。
- 架設位置需遠離陽光直射與熱源。建議周圍溫度最高溫不要超過 104°F (40°C)。
- 如果是安裝於封閉式或多組機架配件，機架環境的周圍操作溫度可能會高過室內周遭。因此，在與上述建議之最高周圍溫度相容的環境中安裝設備時，應將此列入考量。
- 將戴爾 SonicWALL 裝置平坦地裝設在機架中，如此才能避免因不均勻的機械負荷造成危險狀況。
- 必須使用四顆與機架設計相容的安裝螺釘，並用手鎖緊螺釘，確定安裝牢固。選擇一個安裝位置，將四個裝載洞孔對齊 19 吋架設機櫃的安裝桿。
- 應當提供一個合適額定值並且已被認可的分支電路斷路器作為安裝該裝置的一部分。在購買材料或部件時，應遵循當地安全代碼。

- 必須留心裝置與電源電路的連接問題，電路過載對過電流保護與電路電線的影響需降至最低。解決這個問題時，需正確考慮裝置銘牌額定值。不要過載電路。
- 必須維護可靠的機架裝載設備接地。必須特別留意電源供應器連線，而不是直接連接到電源板之類的分支電路。
- 隨附的電源線僅限於特定的國家或地區使用。使用前，請確認電源線的額定值且已被認可可在你的地區上使用。
- 當安裝及後續接觸產品背面之後，必須用工具將指旋螺釘鎖緊。



風扇潛在危險警告

- 更換風扇部件前，請仔細閱讀，並遵循所提供的指示。

## 鋰電池警告

使用者不得自行更換戴爾 SonicWALL 網際網路安全性裝置中使用的鋰電池。必須將戴爾 SonicWALL 送回戴爾 SonicWALL 授權的服務中心，以更換相同的鋰電池或製造商推薦的同類型鋰電池。若因任何原因必須丟棄電池或戴爾 SonicWALL 網際網路安全性裝置，請嚴格遵守電池製造商的指示。

## 纜線連結

所有乙太網路與 RS232 (主控台) 線路都是為與其他裝置進行內建連接所設計的。請不要將這些連接埠直接連接至通訊線路，或其他連出戴爾 SonicWALL 所在建築的線路。

## **FCC Part 15 Class A Notice**

NOTE: This equipment was tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. And if not installed and used in accordance with the instruction manual, the device may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user is required to correct the interference at his own expense.

Caution: *Modifying this equipment or using this equipment for purposes not shown in this manual without the written consent of Dell, Inc. could void the user's authority to operate this equipment.*

## **Declaration of Conformity**

A "Declaration of Conformity" in accordance with the directives and standards has been made and is on file at Dell Inc. Products Europe BV, Limerick, Ireland.

## **CISPR 22 (EN 55022) Class A**

This product complies with CISPR 22 and EN 55022 Class A standards.  
Warning: This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

## **BMSI Statement**

警告使用者：

此為甲類資訊技術設備，於居住環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

## **VCCI Statement**

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI - A

## **Canadian Radio Frequency Emissions Statement**

This Class A digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe A est conforme à toutes la norme NMB-003 du Canada.

## **India RoHS Statement**

This product complies with Restriction of Hazardous Substances (RoHS) requirements as prescribed by E-Waste (Management & Handling) Rules, by the Ministry of Environment & Forests, Government of India.  
For further information, please see:  
[http://www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance)

## Regulatory Information for Korea



Ministry of Information and Telecommunication  
Certification Number MSIP-REM-SWL-0A5

All products with country code "A" and "J" are made in the U.S.A.  
All products with country code "C" or "D" are made in Taiwan R.O.C.  
All certificates held by Secuwide, Corps.

A 급 기기 (업무용 정보통신기기)  
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또는 사용자는 이 점을 주의하시기 바라며, 만약 잘못 판매 또는  
구입하였을 때에는 가정용으로 교환하시기 바랍니다.

## ANATEL Certification for Brazil



2748-13-6529



( 0 1 ) 0 7 8 9 9 4 8 9 5 0 2 1 6 6

Este produto está homologado pela Anatel, de acordo com os procedimentos regulamentados pela Resolução nº 242/2000 e atende aos requisitos técnicos aplicados.

Para maiores informações, consulte o site da ANATEL -

<http://www.anatel.gov.br>

## Warranty Information

All Dell SonicWALL appliances come with a 1-year Limited Hardware Warranty which provides delivery of critical replacement parts for defective parts under warranty. Visit the Warranty Information page details on your product's warranty: <http://www.sonicwall.com/us/en/support/Services.html#tab=warranty>

## Copyright Notice

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